

**TRANSLATION**

**PATENT COOPERATION TREATY**

**PCT**

**INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY**

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference <b>0000055195</b>	<b>FOR FURTHER ACTION</b>	See Form PCT/IPEA/416
International application No. <b>PCT/EP2004/014393</b>	International filing date (day/month/year) <b>17.12.2004</b>	Priority date (day/month/year) <b>19.12.2003</b>
International Patent Classification (IPC) or national classification and IPC <b>C07D487/04 A01N43/90</b>		
Applicant <b>BASF Aktiengesellschaft</b>		

1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.
2. This REPORT consists of a total of <b>6</b> sheets, including this cover sheet.
3. This report is also accompanied by ANNEXES, comprising: a. <input type="checkbox"/> (sent to the applicant and to the International Bureau) a total of _____ sheets, as follows: <input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions). <input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. 1 and the Supplemental Box. b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).
4. This report contains indications relating to the following items: <input checked="" type="checkbox"/> Box No. I Basis of the report <input type="checkbox"/> Box No. II Priority <input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability <input type="checkbox"/> Box No. IV Lack of unity of invention <input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement <input checked="" type="checkbox"/> Box No. VI Certain documents cited <input type="checkbox"/> Box No. VII Certain defects in the international application <input type="checkbox"/> Box No. VIII Certain observations on the international application

Date of submission of the demand	Date of completion of this report
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

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Box No. 1

Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language \_\_\_\_\_ which is the language of a translation furnished for the purposes of:
- ☐ international search (Rule 12.3 and 23.1(b))
- ☐ publication of the international application (Rule 12.4)
- ☐ international preliminary examination (Rule 55.2 and/or 55.3)
2. With regard to the elements of the international application, this report is based on (replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report):
- ☐ the international application as originally filed/furnished
- ☒ the description:
- pages 1-49 \_\_\_\_\_ as originally filed/furnished
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☒ the claims:
- nos. 1-11 \_\_\_\_\_ as originally filed/furnished
- nos.\* \_\_\_\_\_ as amended (together with any statement) under Article 19
- nos.\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- nos.\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☐ the drawings:
- sheets \_\_\_\_\_ as originally filed/furnished
- sheets\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- sheets\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.
3. ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, nos. \_\_\_\_\_
- ☐ the drawings, sheets/figs \_\_\_\_\_
- ☐ the sequence listing (specify): \_\_\_\_\_
- ☐ any table(s) related to sequence listing (specify): \_\_\_\_\_
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, nos. \_\_\_\_\_
- ☐ the drawings, sheets/figs \_\_\_\_\_
- ☐ the sequence listing (specify): \_\_\_\_\_
- ☐ any table(s) related to sequence listing (specify): \_\_\_\_\_

\* If item 4 applies, some or all of those sheets may be marked "superseded."

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

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Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement		
1. Statement			
Novelty (N)	Claims	1-11	YES
	Claims		NO
Inventive step (IS)	Claims	1-11	YES
	Claims		NO
Industrial applicability (IA)	Claims	1-11	YES
	Claims		NO
2. Citations and explanations (Rule 70.7)			
1. <u>Citations</u>			
D1: WO 03/080615 A (BASF AKTIENGESELLSCHAFT; TORMO I BLASCO, JORDI; BLETNER, CARSTEN; MUE), 2 October 2003 (2003-10-02)			
D2: WO 03/080614 A (BAYER CROPSCIENCE AKTIENGESELLSCHAFT; BOIE, CHRISTIANE; DUNKEL, RALF;), 2 October 2003 (2003-10-02)			
D3: WO 99/41255 A (AMERICAN CYANAMID COMPANY), 19 August 1999 (1999-08-19)			
D4: WO 98/46608 A (AMERICAN CYANAMID COMPANY), 22 October 1998 (1998-10-22)			
D5: EP-A-0 071 792 (BASF AKTIENGESELLSCHAFT), 16 February 1983 (1983-02-16)			
D6: US-A-5 994 360 (PFRENGLE ET AL), 30 November 1999 (1999-11-30)			
D7: EP-A-0 770 615 (AMERICAN CYANAMID COMPANY; BASF AKTIENGESELLSCHAFT), 2 May 1997 (1997-05-02)			
The designations given above will be used throughout the remainder of the procedure.			

Box No. V

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability;  
citations and explanations supporting such statement**2. Novelty**

The subject matter of claim 1 differs from what is disclosed in documents D1 to D7 at least in as much as the cited prior art does not describe compounds in which the amino group in the amido radical on the phenyl ring is an unsubstituted NH<sub>2</sub> group. The subject matter of claim 1 and hence also of claims 2 to 11 is therefore novel.

**3. Inventive step**

- 3.1 According to the description, the problem addressed by the invention can be seen as that of providing fungicidal compounds which are more effective than the structurally similar compounds known from D1.
- 3.2 Document D1 is the closest prior art. The compounds disclosed in D1 are structurally very similar to those claimed in the present application, and they are also designed as fungicides. The only structural difference is the fact that the compounds of D1 can have a CO-NH(alkyl) group or a CO-N(alkyl)<sub>2</sub> group attached to the phenyl group (CO-NHCH<sub>3</sub> is verified in Table 14 in D1), whereas the compounds claimed in the present application always have a CO-NH<sub>2</sub> group.
- 3.3 The structural modification with respect to D1 certainly falls within the boundaries of what can be regarded as a routine variation for a person skilled in the art. At first glance it seems obvious that the options mentioned in D1 (namely N,N-dialkylamido and

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Box No. V

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability:  
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N-alkylamido) would prompt a skilled person to investigate the action of compounds having a "free" amido group. However, one would not expect a structural variation of this kind to result in improved action, and yet the applicant has plausibly shown by way of comparative tests, using the compounds of D1 that are most closely related in terms of their structure and differ from the claimed compounds only by virtue of the amido group, that such an improvement is achievable. Thus the aforementioned technical problem is solved, because the claimed compounds have been shown to be more effective than those described in the closest prior art (D1). Since this improved activity is not obvious from D1, the subject matter of claims 1 to 4 (substance claims) and claims 9 to 11 (use claims) can be considered inventive.

- 3.4 Process claims 5, 6 and 8, and claim 7 relating to intermediate products, can also be considered inventive because the intermediate products can be converted by means of the claimed processes into final products that are covered by claim 1, which in turn is considered inventive.

4. Industrial applicability

The subject matter of claims 1 to 11 is industrially applicable.

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## Box No. VI Certain documents cited

## 1. Certain published documents (Rule 70.10)

Application No. Patent No.	Publication date (day/month/year)	Filing date (day/month/year)	Priority date (valid claim) (day/month/year)
WO 2004/041824	21.05.2004	04.11.2003	07.11.2002

This document was published after the priority date of the present application but before its filing date, and could therefore be relevant at least with regard to novelty in the regional phase before the EPO.

## 2. Non-written disclosures (Rule 70.9)

Kind of non-written disclosure	Date of non-written disclosure (day/month/year)	Date of written disclosure referring to non-written disclosure (day/month/year)
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